

3-Part CSI Specifications

Removable Flood Barrier With Pneumatic Seals

These specifications are intended to be used as a guideline for architects and engineers as they establish the requirements for a particular project, and may be modified by them as deemed appropriate.

PART 1 - GENERAL

1.01 DESCRIPTION

- a.) Work Included: Provide flood barrier(s) factory assembled with frame(s) and hardware in accordance with the contract documents.

1.02 STANDARDS

- a.) Comply with the provisions of (as applicable).
 - (1) AWS Structural Welding Code.
 - (2) ASME Structural Welding Code Section IX.

1.03 SUBMITTALS

- a.) Manufacturers Data: Submit installation and maintenance instructions for flood barriers.
- b.) Shop Drawings: Submit shop drawings for flood barriers including dimensioned plans and elevations, sections, connections and anchorage, and parts list.
- c.) Calculations (Optional): Submit calculations, approved by a qualified engineer, to verify the barrier's ability to withstand the design pressure loading.

1.04 QUALIFICATIONS

- a.) Experience: The manufacturer of the flood barrier(s) shall present evidence attesting to at least 5 years of successful experience in the design and manufacture of both the flood barrier and flood barrier seal of the type specified.

PART 2 - PRODUCTS

2.01 FLOOD BARRIER SHALL BE MODEL FB22 AS MANUFACTURED BY PRESRAY CORPORATION.

2.02 MATERIALS

- a.) Panel: 6061 –T6 aluminum plate.
- b.) Conversion Frame: Low carbon steel (stainless steel optional).
- c.) Finish: Panel, bright aluminum finish. Conversion frame, brush-off blast clean per SSPC-SP7, primed with one coat rust inhibitive, lead free, red primer.

- d.) Seals: Dual Presray type Pneuma-Seal® inflatable gaskets with extruded aluminum retainer. Each seal shall have an automotive type air inflation stem and independent 0-60 PSI pressure gauge.
- e.) Hardware:
 - Handles: Welded aluminum hand grips on top edge and/or side of panel for easy handling.
 - Latch Bolts: Quick acting manually operated bolts located at each jamb to lock panel in position. With lockable feature.
- f.) Optional: For use where facility air is not available
 - Air Source: Hand pump or (portable compressors also available for multiple flood barrier installations)
 - Floor or Wall Mounted Storage Racks, Transport Dollies: to move panels into position.
 - Multi-Panel Systems: with removable mullions between panels for openings too wide to be accommodated by single panel.

2.03 DESIGN

- a.) Flood barrier(s) shall be designed with a minimum 2:1 factor of safety based on material yield strength, and shall provide an effective seal against the design flood level.
- b.) Panel and conversion frame shall have lower corners radiused to optimize sealing.
- c.) Conversion frame shall have mounting holes for expansion anchors and bolts (Options available include epoxy anchors for block walls, and studs for embedment in concrete).

2.04 FABRICATION

- a.) Sealing surfaces shall be finished to 63 microinch to maximize sealing, uninterrupted by steps greater than .015, free from cracks, and with finish lay parallel to seal.
- b.) Frame to be straight within 1/8" over entire length.

2.05 INSPECTION AND TEST

- a.) Proof test and leak test inflatable seals per Presray standard practice.

PART 3 - EXECUTION

3.01 INSTALLATION

- a.) Install flood barriers in accordance with manufacturer's instructions and approved shop drawings.

PART 4 - WARRANTY

- 4.01 1-YEAR LIMITED AGAINST DEFECTS AND WORKMANSHIP FROM DATE OF SHIPMENT.